IN THE CLAIMS:

Please cancel Claims 1 to 20 without prejudice or disclaimer of subject matter and add new Claims 21 to 42 as shown below. The claims, as pending in the subject application, read as follows:

1. to 20. (Canceled)

21. (New) A data communication system comprising a first data communication unit, and a second data communication unit communicating with said first data communication unit, said data communication system comprising:

a deciding unit adapted to decide a first data length of a packet to be transferred from said first data communication unit to said second data communication unit based upon information related to a second data length of a packet which is receivable by said second data communication unit,

wherein said first communication unit comprises:

a generating unit adapted to generate a plurality of packets having said first data length;

a storage unit adapted to store the plurality of packets generated by said generating unit; and

a DMA controller adapted to control DMA transfer of the plurality of packets having said first data length stored in said storage unit to said second data communication unit.

22. (New) The system according to claim 21, wherein said generating unit adds to each of the plurality of packets having said first data length, information indicating whether the packet is a final packet.

23. (New) The system according to claim 21, wherein said first data length is shorter than said second data length.

24. (New) The system according to claim 21, wherein said first data communication unit further comprises a first serial communication controller for controlling serial communication with a second serial communication controller of said second data communication unit, said first serial communication controller converting the packets transferred by said DMA controller to a bit string and outputting said bit string to said second serial communication controller.

25. (New) The system according to claim 21, wherein said first data communication unit receives the information related to the second data length of a packet which is receivable by said second data communication unit, from said second data communication unit.

26. (New) The system according to claim 21, wherein said generating unit generates the plurality of packets of said first data length by dividing data having a predetermined data length.

27. (New) The system according to claim 26, wherein said predetermined data length is variable.

28. (New) The system according to claim 21, wherein said deciding unit decides said first data length in response to initialization of said data communication system.

29. (New) The system according to claim 21, wherein said DMA controller controls DMA transfer of the plurality of packets having said first data length transmitted from said second data communication unit, to said storage unit.

30. (New) The system according to claim 21, wherein said deciding unit decides the first data length based upon the information related to the second data length of a packet which is receivable by said second data communication unit, and information related to a third data length of a packet which is transmittable by said first data communication unit.

31. (New) The system according to claim 21, wherein said first data communication unit further comprises an image input unit for inputting image data, and said second data communication unit further comprises an image processing unit for processing image data input by said image input unit.

32. (New) A data communication device for communicating with another data communication device, comprising:

a deciding unit adapted to decide a first data length of a packet to be transferred to said another data communication device based upon information related to a second data length of a packet which is receivable by said another data communication device;

a generating unit adapted to generate a plurality of packets having said first data length;

a storage unit adapted to store the plurality of packets generated by said generating unit; and

a DMA controller adapted to control DMA transfer of the plurality of packets having said first data length stored in said storage unit, to said another data communication device.

33. (New) The device according to claim 32, wherein said generating unit adds to each of the plurality of packets having said first data length, information indicating whether the packet is a final packet.

34. (New) The device according to claim 32, wherein said first data length is shorter than said second data length.

35. (New) The device according to claim 32, further comprising a first serial communication controller for controlling serial communication with a second serial communication controller of said another data communication device, wherein said first serial communication controller converts the packets transferred by said DMA controller to a bit string and outputs said bit string to said second serial communication controller.

36. (New) The device according to claim 32, wherein said data communication device receives said information related to the second data length of a packet which is receivable by said another data communication device, from said another data communication device.

37. (New) The device according to claim 32, wherein said generating unit generates the plurality of packets having said first data length by dividing data having a predetermined data length.

38. (New) The device according to claim 37, wherein said predetermined data length is variable.

39. (New) The device according to claim 32, wherein said deciding unit decides said first data length in response to initialization of said data communication device.

40. (New) The device according to claim 32, wherein said DMA controller controls DMA transfer of the plurality of packets having said first data length transmitted to said another data communication device, to said storage unit.

41. (New) The device according to claim 32, wherein said deciding unit decides the first data length based upon the information related to the second data length of a packet which is receivable by said another data communication device, and information related to a third data length of a packet which is transmittable by said data communication device.

42. (New) A data communication method for communication between a first data communication unit and a second data communication unit, comprising the steps of:

a deciding step of deciding a first data length of a packet to be transferred from said first data communication unit to said second data communication unit based upon information related to a second data length of a packet which is receivable by said second data communication unit,

a generating step of generating a plurality of packets having said first data length;

a storing step of storing the plurality of packets generated in said generating step to a storage unit of said first data communication unit; and

a control step of controlling DMA transfer of the plurality of packets having said first data length stored in said storage unit to said second data communication unit.